

Patent claims

1.-12.: (Canceled)

13. (New) A master cylinder (1) for a controlled brake system, comprising a housing, at least one piston (3, 4; 53, 54) displaceable in the housing (2) and sealed from a pressure chamber (7, 8) by means of a sealing element (5, 6) arranged in an annular groove (23, 24) of the housing (2), said pressure chamber being connectable to an unpressurized supply chamber (11, 12) by means of transverse bores (9, 10; 50, 51) provided in the piston (3, 4; 53, 54),  
wherein recesses (15, 16, 17) are arranged on an inside surface (13, 14) of the piston (3, 4; 53, 54) into which the transverse bores (9, 10) open.
14. (New) The master cylinder as claimed in claim 13,  
wherein the piston (3, 4; 53, 54) has on one side (36, 37; 55, 56) a substantially bowl-shaped wall (21, 22; 57, 58) with a first inside diameter (D1) and a second inside diameter (D2), with the second inside diameter (D2) being larger than the first inside diameter (D1), and in that the transverse bores (9, 10; 50, 51) are arranged in a zone between the first and second inside diameters (D1, D2).
15. (New) The master cylinder as claimed in claim 14,  
wherein the recesses (15, 16) are configured as a circumferential radial inside groove.
16. (New) The master cylinder as claimed in claim 14,  
wherein the recesses (17) are configured as tooth interspaces of a toothed profile on the inside surface (13, 14) of the piston (3, 4).
17. (New) The master cylinder as claimed in claim 16,  
wherein the recesses (17) extend in an axial direction until an end (19, 20) of the piston (3, 4).
18. (New) The master cylinder as claimed in claim 13,  
wherein the transverse bores (9, 10) have a length of bore (L) and a

- diameter of bore (D), and the ratio of the length of bore (L) relative to the diameter of bore (D) is approximately equal to 1.
19. (New) The master cylinder as claimed in claim 13, wherein opposite transverse bores (50, 51) have parallel boundary surfaces (52).
  20. (New) The master cylinder as claimed in claim 19, wherein the transverse bores (50, 51) have the shape of an oblong hole.
  21. (New) The master cylinder as claimed in claim 20, wherein the transverse bores (50, 51) are manufactured by shaping.
  22. (New) The master cylinder as claimed in claim 20, wherein the transverse bores (50, 51) can be manufactured by drilling radial direction relative to a longitudinal axis (M) of the piston (53, 54).
  23. (New) The master cylinder as claimed in claim 21, wherein the transverse bores (50, 51) have a length of bore (L), a length (L1) and a width (B), and the ratio of length of bore (L) to width (B) is approximately equal to 1.
  24. (New) The master cylinder as claimed claim 13, wherein between four and twenty-four transverse bores (9, 10; 50, 51) are evenly distributed around the periphery of the piston (3, 4; 53, 54).